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ARCHIVES

OF

CLINICAL SURGERY.

A Periodical Devoted to Surgery in all its Special Departments,

EDWARD J. BERMINGHAM, M. D., EDITOR.

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ARCHIVES OF CLINICAL SURGERY.

VOL. II, No. 3

JUNE, 1877.

Whole No., 12.

ORIGINAL PAPERS.

ON REFLEX MUSCULAR CONTRACTION AND ATROPHY IN JOINT DISEASE—WITH REMARKS ON MECHANICAL EXTENSION AND A DESCRIPTION OF NEW APPARATUS.

BY

NEWTON M. SHAFFER, M. D.

Surgeon to the New York Orthopædic Dispensary and Hospital; Orthopædic Surgeon to St. Luke's Hospital.

The indications for applying mechanical extension in the treatment of morbus coxarius in a direction which corresponds with the long axis of the contracted limb were long since demonstrated.* The importance of these indications as designating a principle in the mechanical treatment of those forms of arthritis to which extension and counter extension are applicable has not however, been universally recognized. Mechanical extension in joint disease is capable, if properly used, of accomplishing much good. Dr. D. Prince, in a recent paper.† says, "It has done more to lessen the severity and shorten the duration of joint disease than all other things put together." I would add to this statement, however;—when the extension is made subservient to the pathological conditions. Dr Prince also mentions the fact which Davis demonstrates, and to which I wish to call especial attention, viz. that extension should be applied so as to avoid joint pressure. In my efforts to make extension meet this indication, especially in diseases of the hip and knee joints, I have devised the apparatus which is described below.

* Davis's Conservative Surgery, pp. 220 and 221.

† Considerations in Relation to Diseases of the Joints—*American Practitioner*—Feb'y 5th, 1877.

The primary contraction that occurs in joint disease is reflex. It has its origin in an inflammation of some of the joint structures. Clinical experience proves that whatever relieves joint pressure and arrests motion, will modify the contraction, and that whatever increases joint pressure aggravates the inflammation and intensifies the contraction. The primary indications are therefore to relieve joint pressure and to arrest motion. These can both be accomplished by a properly adjusted extension apparatus. But if the apparatus be improperly adjusted it is apt to do harm. If we apply extension, for instance, to a diseased hip joint where flexion of the thigh exists, in a line which corresponds with the long axis of the trunk, we create a lever, where the fulcrum, (insertion of flexors) lies between the power (extension) and the resistance (joint surfaces). It is with the purpose of avoiding joint pressure in this condition that the limb is placed on an inclined plane—the patient being in the recumbent position. The extension is then exerted, so far as the conformation of the hip joint will permit, directly upon the joint, and the contracted muscles yield, as the cause of the contraction is modified. In a simple case of this character no mechanical device aside from the extension apparatus is necessary, except the inclined plane upon which to rest the limb. Gravity is all that is necessary to overcome the resistance, thus proving that a gentle force alone is required to supplement the extension in overcoming the deformity. When, however, the flexion is complicated (as it usually is) by either adduction or abduction of the limb in coxitis, gravity ceases to be an adjuvant force as applied to these complications. The means that have proved the most satisfactory in these conditions, in my experience, are described farther on.

We may state it as a rule, which is applicable to all diseased joints for the treatment of which mechanical extension is indicated, that we should never use the contracted limb as the long arm of a lever as a means of exerting any considerable force (power) upon the diseased joint surfaces, (fulcrum) to overcome the contracted muscles (resistance). On the contrary, in arranging our apparatus we should bear in mind the anatomy of the joint, its pathological condition and the object to be attained. The extent and direction of the force applied should be governed by these considerations and we should be prepared to gently follow up any remission in the contraction, and thus gradually bring the limb into the desired position.

The employment of a considerable degree of force in overcoming the deformity produced by reflex muscular contraction cannot be too strongly deprecated. If gentle means do not answer, it would be better, in

my opinion, to perform tenotomy or myotomy, and thus overcome, at least in part, the resistance, or even to ignore the malposition and to aim only at fixation—leaving the deformity for subsequent operative surgery, than to apply undue force to an already diseased joint, merely for the sake of securing a better position for the limb. Happily the cases are exceptional where the deformity cannot be controlled by measures that will not inflict injury, or aggravate the disease.

In the application of these important principles, in the treatment of joint diseases, I have found the existing appliances imperfect. Dr. Taylor's hip splint affords the best means of making extension in hip

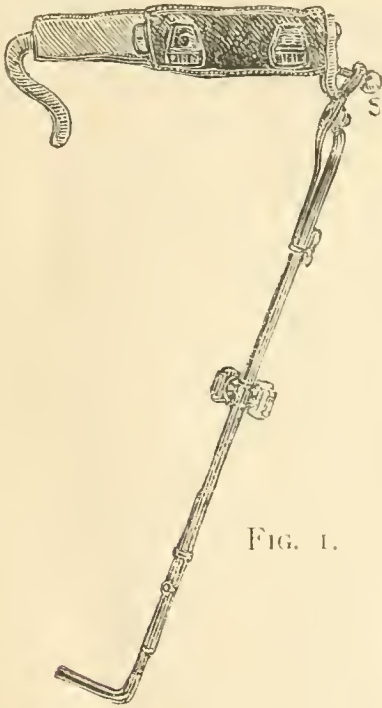


FIG. 1.

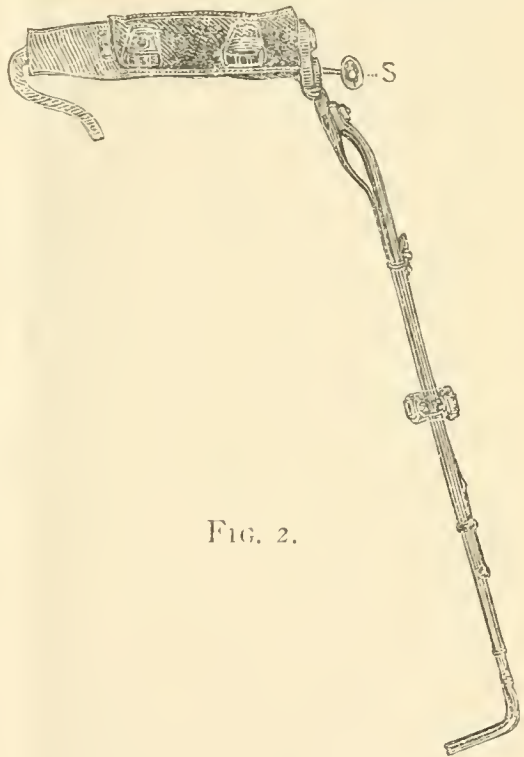


FIG. 2.

joint disease. To it, in 1863, Dr. Taylor added an "abduction screw". A description of the splint and screw are not necessary here. They are both familiar to the profession. It need only be said that they do not, either singly or combined, permit the application of the extension, in many conditions that present, in the *exact* line of the deformity. I have devised what I have called a "lateral screw", which allows extension in *any* direction that is indicated, and which at the same time can be made to act, without removing the splint, as an *adductor* or an *abductor* of the limb, at the pleasure of the surgeon. It can be attached to Dr. Taylor's splint in the same manner as his "abduction screw."

Figs. 1 and 2 represent the "lateral screw" as applied to one of Tay-

lor's splints. 1 shows the shaft adducted,—2 abducted. By simply turning the screw at S, the shaft of the splint can be made stationary at any point between the extremes indicated in the engravings. By using the screw, when the splint is adjusted, the surgeon is enabled to gradually and very gently change the position of the limb at will.

The "lateral screw" (Fig. 3), consists of two parts, A and B, joined together by the lateral hinge C. The part A is fastened to the pelvic band. The part B is attached to the shaft of the splint. Through the everted lip D, there passes a screw S, which operates through a button (which revolves on a horizontal axis), and which is fastened into another button (also revolving on a horizontal pivot) in the part A. By turning this screw we can either approximate the lip D toward the part A, (producing *abduction*,) or by reversing the screw we can separate D from A,

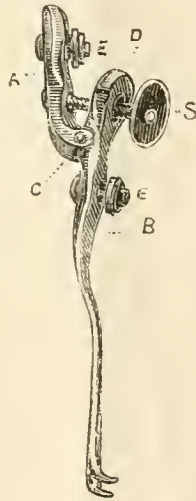


FIG. 3.

and *adduct*. E, E, represent the screw bolts, by which the apparatus is attached to the hip band and shaft of the splint.

Before the splint is applied the screw should be turned as the circumstances indicate until the direction of the shaft of the splint corresponds with the position of the limb. After adjustment, extension is applied, in the "line of the deformity," and no attempt should be made to overcome the contraction by the use of the screw, for several days. It should then be used very gently. It is better to imitate the force of gravity, by which flexion is generally so readily overcome, and only "follow up" the contractions as they are modified by the extension, immobilization and the proper therapeutical adjuvants. If we use the screw to *abduct*, the ordinary perineal pads, which form the basis of the

counter extension, will also be the point of resistance. When we use the screw to *adduct*, it will be necessary to supplement the *perineal* with *shoulder* straps, and to apply a little more extension than is required, so that as we use the "lateral screw," the extra force may be transferred to and lost upon the shoulders. Adequate extension and adduction are thus obtained. We should also secure the hip band firmly by the padded strap, which completes the circumference of the pelvis. In order to secure the shoulder straps in position, we cross them as they pass upward from the hip band to the shoulders on both the anterior and posterior walls of the thorax. It is also necessary to secure the pelvic band, so that its anterior half will form a slightly acute angle with the shaft. This may be done with webbing straps.

In a case of morbus coxarius (Mary McDonald, aged 8,) occurring in my service at St. Luke's Hospital, the limb was abducted so that the external malleolus was removed $17\frac{1}{2}$ inches from the median line. The limb was rigidly held in this position (with slight flexion), and no motion whatever at the joint could be detected. Taylor's splint, with the "lateral screw" was applied, as above described, in the *exact* line of the deformity. I then made exaggerated direct extension, and immediately proceeded to adduct the limb with the screw, thus transferring the extra force, which would otherwise be exerted on the *perineum*, to the *shoulders*. The result was an immediate and painless adduction of the limb to the extent of three inches. On the second day, with the splint removed, the limb assumed under gentle manipulation, unaided by any artificial support, a position six inches nearer the median line. In other words, extension in the direct line of the deformity, with a painless adducting force had, in twenty-four hours, relieved the deformity to this extent. The limb was thus gradually adducted until the deformity was overcome in about ten days. This case was an extreme one, so far as the deformity was concerned, and I selected it as a case in which to test the efficiency of the "lateral screw" as an *adductor*. The degree of the force applied was unnecessary. But as no pain was excited and no constitutional symptoms supervened, we felt justified in making it a case in which to note the result of pressure upon the shoulders, and the necessary arrangement of the entire apparatus. The result was extremely satisfactory. The patient is now walking about in a plain Taylor splint—the screw having been removed. In another case, also in St. Luke's Hospital, (Mamie Fitzgerald, aged $4\frac{1}{2}$,) I applied the "lateral screw" as an *abductor*. The limb was adducted and flexed to an extreme degree. By a cautious use of the direct extension with the "lateral screw" the

limb was easily straightened, with no unfavorable symptom, and without pain.

In all cases, the inclined plane should be used to accommodate the contracted flexors. I generally use for that purpose two or more tolerably hard pillows arranged to meet the indications.

The anatomy of the hip-joint, and the relations to it of the neck and shaft of the femur, render the problem of controlling extension upon this articulation, in the manner indicated, a rather difficult one. As we make extension with Taylor's splint, the force passes to the trochanter major, in the line we would choose. But here the angle of the neck, and the ball and socket articulation at the extremity of it, interfere with the transmission of the force in a direct line. In extreme adduction of the thigh, for instance, where the distal extremity of the limb lies inside of the mesial plane of the body, the inferior portion of the joint would be subjected to a pressure as a result of extension, that would be equivalent to the force applied. The difficulties in the way of making extension in the line of the neck are obvious. For these reasons we should be very guarded in the use of that which we apply in the line of the shaft of the femur. I have seen several cases where a disregard to these simple anatomical facts, has aggravated the disease. Under any circumstance we should not depend on extension wholly. Recognizing as a fact that, in by far the greater number of cases, the initial lesion consists of an inflammation in the cancellous structure of the bone, and regarding traumatism as an exciting cause, I do not depend on mechanical means alone in the treatment of an essentially constitutional disease.

The positions assumed by the thigh in morbus coxarius (as a type of joint disease) are due, I believe, to the reflex contraction. In other words, we have associated with the joint disease and dependant upon it, an inflammation of the peripheral nerves supplying the joint, and that the reflex contraction as well as the direct atrophy are but the expression of the nerve lesion. I may state as a result of my clinical observations on this point, that the force and persistency of the contraction, the muscles affected by it, the degree of muscular atrophy and the rapidity with which it occurs, and the extent of the impaired electro-muscular contractility, all have their value as indicating the actual pathological condition of the diseased articulation, and are of great service in making both our diagnosis and prognosis. In chronic osteitis, especially if associated with a chondritis, the contraction is firm, tense and very persistent. It increases with greater or less rapidity until ankylosis

is simulated. The atrophy is slowly but steadily progressive and the muscles show a marked decrease in Faradic reaction. This is especially the case in the dry osteitis. In chronic (gelatinous) synovitis, the contraction is not so marked, and the muscles do not so quickly respond as they do in chronic osteitis, to the stimulus of passive motion. The movements of the joint are more or less free and within a limited area, are not productive of pain. The atrophy also occurs slowly—more slowly than in the chronic epiphyseal inflammation, and the reduction of the Faradic reaction is not so great. The trophic disturbances are in accord with the sluggish nature of the lesion. In acute synovitis, however, the atrophy occurs sometimes with surprising rapidity, and the contractions symyathize with the acute character of the disease. Paget says: “This wasting occurs quickly in nearly all acute diseases of the joints—more slowly in the chronic inflammations.”* Again, when speaking of acute joint disease: “It is, I repeat, not a mere wasting from disuse—it is far more rapid than that, more like what has been called acute atrophy of muscles, such as is seen in the swiftest cases of infantile paralysis.”† This wasting, which Paget calls “reflex atrophy,” “seems dependant on disordered nervous influence, and often appears proportionate to the coincident pain, as if it were due to the disturbance of some nutritive nervous centre, irritated by the painful state of the sensitive nerve fibre.”‡ Coincident inflammation, rather than “coincident pain,” would, I believe, have better expressed the condition.

Brown-Sequard was the first to propose and demonstrate the following propositions: “*Nerve irritation alone is capable of determining rapid and early atrophy of the muscles, preceded by decrease or disappearance of Faradic contractility. Complete nerve division does not induce atrophy and loss of electrical contractility until after an incomparably greater lapse of time, as in the case of prolonged inaction.*”§

Charcot remarks: “If lesions, whose consequence is the abolition or suspension of the action of the nervous system, are impotent to produce in distant parts other nutritive disturbances than those attributable to prolonged inaction, *it is not thus as regards lesions, which determine either in the nerves or nervous centres, an exaltation of their properties, an irritation*

*. Clinical Lectures & Essays—page 208.

†. Op. Cit., p. 209.

‡. Op. Cit., p. 209.

§. Lectures on Diseases of the Nervous System. By J. M. Charcot. New Sydenham Society, 1877, pp. 13 and 42.

or an inflammation."* Again, he says: "It appears in fact to be demonstrated that the latter [muscular alterations consequent on nerve-irritation] supervene with much greater rapidity, and are preceeded and accompanied by more or less marked modifications of electrical contractility, which do not show themselves in the former [muscular alterations connected with functional inertia] with the same characteristics, and only make their appearance at the end of a very long lapse of time."†

The atrophy that occurs from simple functional inertia combined with the pressure produced by adhesive plaster and bandaging, is witnessed when the not infrequent error is made of treating by these means and an apparatus, a neuromimesis of a joint lesion, for the real disease. This simple atrophy following disuse and pressure is altogether different from that which ensues from an actual joint lesion, and is unaccompanied by a loss of electro-muscular contractility. These facts I have demonstrated to my own satisfaction in many cases. But in order to secure the opinion of a high authority, I invited my friend, Dr. E. C. Seguin, to test several cases occurring in my service at the Orthopædic Dispensary. Four cases of hip-joint disease [none of which had been tested by myself,] selected at random, were examined by Dr. Seguin, in presence of Drs. M. R. Vedder, of N. Y., A. G. Thompson, of Islip, L. I., and the house staff of the hospital. In every case, the muscles of the *thigh* showed a very decided decrease of Faradic contractility, while those of the *leg* showed a normal reaction. Here again was shown the difference between the trophic disturbances following joint disease and those which ensue upon simple disuse. All of these cases had been under treatment for a long time—the affected limb being subjected to the pressure both from adhesive plaster and bandages—and kept in a position where no weight had been thrown on it for many months.

I have recognised these facts for a long time, and it has been my custom to instruct the house staff at the Orthopædic Dispensary and Hospital, to ignore muscular atrophy, so far as treatment was concerned. Properly applied extension will prevent rather than augment that which is due to the disease. We certainly, in view of the fact that it is unimportant compared with the disease we are treating, can afford to ignore that which occurs from disuse alone. I have under my observation now a case of joint disease in the adult, of over fifteen years

*. Op. Cit., p. 12.

†. Op. Cit., pp. 37 and 38.

duration, where supports of various kinds, or crutches, have been constantly used. There exists a slightly reduced Faradic reaction only in those muscles which are unconnected with the diseased articulation. As Charcot remarks, the nutritive disorders of the muscles consequent upon functional inertia make their appearance at the end of a *very* long lapse of time.

The value of these facts, as a means of diagnosis and prognosis, I shall make the subject of a future paper.

A case of traumatic hip-joint disease sent me by my friend Dr. Leroy McLean of Troy, N. Y. will illustrate the relation of the reflex contraction and the atrophy to the lesion.

Mr. F. H. P. of Glen's Falls, N. Y., a strong and healthy man of 24, fell, on the 4th of November last, through an elevator well, a distance of 36 feet. The force of the fall was expended on the left hip-joint in a direction upward and outward. No dislocation or fracture occurred. After the fall he was assisted to rise and walked several steps. The immediately urgent symptoms following were those of intestinal obstruction, though there was an ecchymotic line about two inches broad, extending from the inside of the thigh to the hypogastric region. No acute joint symptoms were present. After a time there was an uneasy sensation about the joint with pain in the knee, and the limb began gradually to assume an adducted and flexed position. The adductors and flexors became "tight" and the latter "stood out like large cords". At the end of three weeks the patient got up and moved about on two crutches, just touching the toe to the floor. He used crutches for three weeks, and afterwards, a cane. He finally, ten weeks after the accident, discarded all artificial support and walked unaided, with a deformed and apparently shortened limb. But as exercise was thus continued, troublesome symptoms began to appear. Any sudden movement of the limb gave pain, especially at the knee, and during the night he was frequently awakened by it. The limb became more deformed, the wasting increased, and the joint grew more and more rigid. The general health was also affected. At the examination of the patient (April 7th last) I found the joint apparently ankylosed with marked adduction and slight flexion. The most careful tests gave no evidence whatever of motion. The flexors and adductors were rigidly and prominently contracted. As Dr. McLean had only a short time before administered chloroform, and as he informed me that the contraction wholly disappeared under its use (only to return, however, with consciousness) I did not administer an anæsthetic. I should have done so but for this positive information.

The Doctor also stated that no roughness of the joint surfaces or crepitus was discoverable. Careful measurement showed that no shortening had occurred. The atrophy of the muscles of the thigh was marked; and (as was subsequently ascertained) their electric contractibility greatly impaired. Faradic reaction was normal in the muscles of the leg. The patient complained of uneasy sensations about the joint and at the knee, and the symptoms mentioned above were all present, aggravated by the natural progress of the disease. Carefully applied extension in the exact line of the deformity (using the "lateral screw" and inclined plane) has corrected the deformity, relieved the pain and re-established a considerable degree of motion. This motion is limited, however, by an involuntary and very sudden contraction, principally of the adductors. The patient (who is very intelligent) likens the sensation to that experienced when one anticipates a blow upon the epigastrium, which, however, is avoided. He has made extraordinary attempts to allow free passive motion of the joint, but the involuntary check invariably occurs at a certain point, not from the pain actually inflicted, but from the apprehension that it will occur. We have here a hip-joint lesion from the differential diagnosis of which synovitis, both acute and chronic, may be eliminated and the cause of which is distinctly traumatic. The symptoms, disregarding entirely the reflex contractions, pointed unmistakably to an osseous lesion of the hip-joint. I can not doubt that it is inflammatory. The reflex contractions (yielding wholly under chloroform) were so firm and tense as to simulate an actual synostosis of the joint. The atrophy has been progressive and exceeds to a considerable extent that which would be induced by simple disuse—and the greatly diminished electromuscular contractility of the muscles of the thigh (those of the leg remaining normal), together with the history of the case, forms an interesting contribution to the study of joint diseases. We add, in conclusion, that these same conditions of reflex contraction, simulating ankylosis, slowly progressive atrophy and impaired Faradic contractility, exist also, in a marked degree, in those unmistakable cases of dry osteitis which affect the hip-joints of children.

The remarks occurring in the first paragraph of this paper are peculiarly pertinent to those lesions of the knee-joint for the treatment of which extension and counter extension are applicable. The various appliances which have been used in treating the diseases of this articulation are, as a class, very faulty in principle. Here again extension is generally applied in such a way that the joint surfaces are made to bear the pressure used to overcome the contraction—the line of extension as ordinarily applied

forming one side of a triangle, the other two sides of which are parts of the thigh and leg, respectively. The resistance to be overcome lies in the flexors—notably the biceps. Again, we see a lever established whose fulcrum is at the joint surfaces, the use of which in extension produces joint pressure and directly favors sub-luxation of the head of the tibia backwards.

I have attempted to meet the pathological indications presented in knee-joint lesions with an apparatus which I devised sometime ago, and which has answered so excellent a purpose in many cases that I feel warranted in calling the attention of the profession thereto. Its design is to apply the desired force directly to the head of the tibia, throwing the

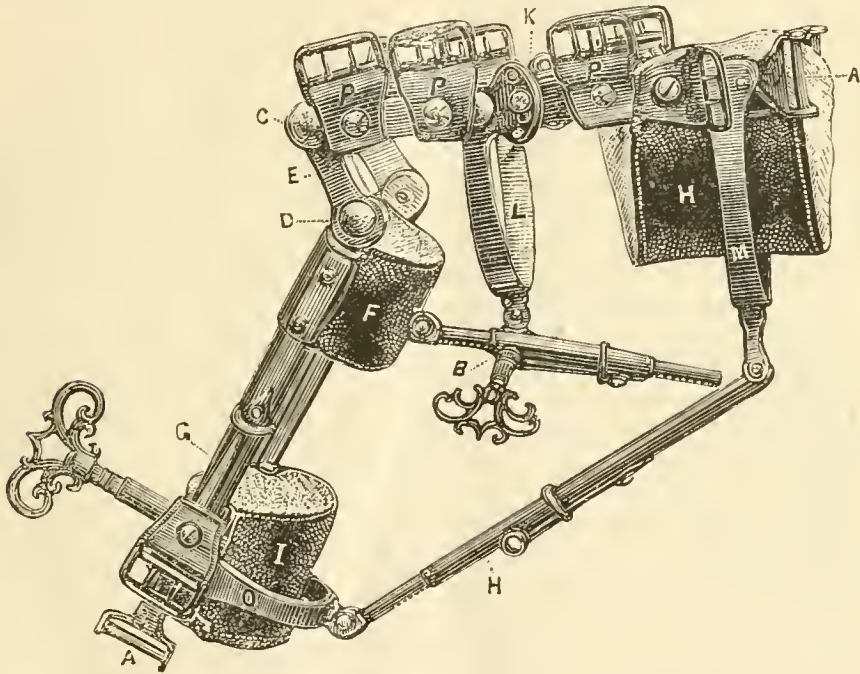


FIGURE 4.

same forward and downward by a simple movement. While we thus overcome the muscular contraction *in a direct line*, we relieve the joint pressure and overcome the deformity simultaneously. The apparatus is represented in figure 4. It consists of three principal parts; the thigh, leg and intermediate. The first two are secured to the limb by adhesive plasters which are attached at the points A, A. Extension is made with a key at the extension rod proper at B. The joints at C. and D. move upon pivots, and as the extremities of the apparatus are secured by their adhesive straps at A, A, the joint D moves forward and downward, describing the arc of a circle, the radius of which is the bar E. Pressure is thus made directly upon the head of the tibia by the band F, and this can

be very greatly augmented by using the extension rod at G, which further relieves the joint of pressure by additional extension in the position already acquired by the preliminary extension of the rod B. H is an accommodation—not properly an extension rod—which glides forwards as the extension is applied at B. As soon as the leg is thrown sufficiently forward, the accommodation rod is secured by a slide, and an extra turn of the key at B and G leaves the joint free from pressure, and with adequate



FIGURE 5.

extension applied directly to the contracted flexors. The thigh and leg bands at H and I move upon pivots so that they adjust themselves readily to any position, and at K there is an arrangement by which the curved bar L may be adjusted to suit the requirements of the extension rod B. The bars M and O are secured to the thigh and leg parts by double rivets. Through the buckles at P, P, P, webbing straps (padded) are passed, producing counter extension in addition to that secured by means of the adhesive straps. Figure 5 represents the apparatus applied. The Faradic

current applied to the muscles in diseases of the knee-joint, shows (so far as my experience goes) a decrease in contractility of the gastrocnemius, biceps, semi-tendinosus and membranous, and also a slower reaction in the quadriceps.

The apparatus we have here described may be obtained from Mr. A. Muller, No. 161 West 29th Street.

No. 52 WEST 28th STREET.

A FORM OF OBSTRUCTION OF THE EXTERNAL AUDITORY CANAL.

BY

CLARENCE J. BLAKE, M. D., BOSTON.

IN No. 2, Vol. IV, of the *Archives of Ophthalmology and Otology*, Prof. Wreden of St. Petersburg, describes a peculiar form of obstruction of the auditory meatus, of which, during the seven years preceding, he had seen twelve cases. The peculiarity of this form of impaction consists in its excessive toughness and its pertinacity of hold in the meatus auditorius, differing in this respect from the ordinary accumulation of cerumen, from which it is readily distinguishable. This peculiar obstruction is composed of exfoliated epidermis; its etiology is obscure, but it is evident, however, that the epidermis of the cutis of the auditory meatus and membrana tympani has been subjected to pathological irritation, to the product of which Wreden applies the term "keratosis obturans."

A somewhat similar, but more common form of occlusion of the external auditory canal may be worthy of mention, since it bears a greater resemblance to the simple impacted cerumen, which the general practitioner is frequently called upon to remove.

This form of accumulation in question, usually has a history of some form of irritation or inflammation of the external auditory canal, often that of a series of furuncles or of a sharp attack of diffuse inflammation which has, in time, passed away, leaving, apparently, to the patient, no trace behind it, until a sudden and possibly an extreme diminution of hearing leads to application for relief. A superficial examination in such a case reveals, apparently, a plug of cerumen filling the external auditory canal, but a further examination with the probe or forceps, which should be conducted only under sufficient illumination, and then with gentleness and care, shows that the dark brown mass differs in consist-

ency from the ordinary cerumen plug, being more pasty in character and intermingled with flakes of yellowish sodden epidermis ; the pasty mass is invested, moreover, with a thickened layer of epidermis, clinging closely to the surface of the lining of the canal and differing from the common investiture of old cerumen plugs, in that it is usually thicker, less readily separable from the lining of the canal, and more intimately united to the body of the mass which it encloses. A ceruminous mass, filling the external auditory canal, prevents elimination of the epidermis of the lining of the canal and outer surface of the membrana tympani, and in the course of time, as layer after layer is thrown off and retained in place by the cerumen, a sac is formed investing the original accumulation. The cerumen itself is very readily soluble in warm water, and after its removal by efficient syringing the membranous envelope may often be removed in toto, by means of the forceps, and bearing no little resemblance to the finger of a glove. In the class of cases forming the subject of this paper, the syringing with warm water has little or no other beneficial effect than the removal of the small quantity of cerumen which may have become impacted upon proximate surface of the original mass. This latter is, apparently, but little affected, even by prolonged soaking, except that the intermingled flakes or shreds of epidermis become swollen by absorption and the surface color of the mass changes from a brown to a dirty yellow. A fine blunt probe and a pair of slender, angular forceps, would seem to be the best instruments for the removal of a mass of this kind. Both should be used with great care and without causing pain, and the removal once undertaken should be conducted with as little interruption as possible, experience showing that after partial removal of such a mass, a delay of forty-eight hours is often sufficient to permit of the occurrence of a degree of swelling of the inflamed tissues, which will materially impede the removal of the remainder, and possibly permit the occurrence of an inflammatory process complicated and favored by the presence of a foreign body, which will rapidly increase in volume by the absorption of fluid. In removing the deeper seated portions of the mass, the anatomical relations of the parts and particularly the inclination of the membrana tympani to the long axis of the external auditory canal, should be especially had in mind, and a corresponding degree of care exercised. Indeed, since the presence of a mass of this peculiar character always implies an inflammation of the lining of the canal, and possibly, deeper seated trouble, its removal should be undertaken only by one skilled in the use of the proper instruments and acquainted with the relations of the parts in question.

Of several cases which have come under my observation, two which have recently presented themselves may serve to illustrate this form of impaction.

The first, a man thirty-six years of age, who had suffered as a boy from purulent inflammation of the middle ear, and more recently from a succession of furuncles in the external auditory canal, applied for relief from loss of hearing in the left ear, which had occurred suddenly a few days before. The patient had been riding in an open carriage, exposed to a cold wind, and on his return at night suffered from slight pain and a sensation of fulness in the left ear. On the following morning he awoke to find that he could not hear his watch when pressed upon the auricle.

Examination revealed, apparently, a plug of cerumen filling the external auditory canal. Syringing with warm water produced no effect beyond a slight discoloration of the water returned, and a change in the appearance of the mass from a dark brown to a dirty yellow, which, with a further examination by means of the probe, revealed the true character of the accumulation.

Patient manipulation with the forceps removed only small portions of the central, pasty mass, and it became necessary to adopt more expeditious means. For this purpose, a probe, tipped with cotton, was dipped in a saturated solution of carbonate of potash, formed by exposure of caustic potash to the air, and inserted in the centre of the mass; the resulting saponaceous compound was then easily syringed away, and this procedure repeated, until the fatty matter being removed, the more tenacious was easily extracted with the forceps. The exposed lining of the auditory canal was found to be much reddened and somewhat swollen, at the inner end of the canal were several small granulations, and an old perforation of the membrana tympani, with a slight muco-purulent discharge from the middle ear, showing a recent inflammation of that cavity, originating, possibly, at the time of exposure in riding, which, had it progressed, might, but for the removal of the dense impaction, have led to serious consequences. The granulations and the middle ear disease were subjected to the usual treatment with good results and further improvement of the hearing.

In the second case, that of a young woman, twenty years of age, there had also been a history of previous ear trouble, indefinite in character, but that it was accompanied by a slight purulent discharge. Four years ago the hearing had become suddenly diminished, but was restored on the removal of a plug of cerumen by syringing. Three days

before coming under my observation, the hearing had again suddenly diminished, a watch previously heard at a distance of ten centimetres not being heard when pressed upon the auricle.

Examination of the left ear showed a small polypus, the size of a grain of wheat, on the floor of the auditory canal, near the meatus, and beyond this, a brownish, apparently, cerumenous mass. Syringing with warm water removed nothing, merely giving prominence to the epithelial constituents of the mass, and revealing its true character. It was removed piecemeal by means of the forceps, the deeper seated portion being more moist than the outer portion and composed principally of large flakes of epidermis, this condition being in part accounted for by the presence of a second small polypus at the inner end of the canal. The membrana tympani was considerably thickened and the surface of the canal reddened and swollen ; this swelling increased rapidly so soon as the pressure of the mass was removed. An examination of the substance removed in this class of cases shows it to correspond somewhat in character to that described by Wreden,* namely ; in all its layers dry cells of epidermis, countless layers of horny epidermis cells, and sparsely disseminated masses of cerumen and hairs from the auditory meatus. The two cases given are fair types of their kind and differ from those described by Wreden in that their etiology is usually sufficiently well marked by the history of a preceding inflammatory process, the existence of growths in the canal, which would favor the exfoliation of epidermis or the exacerbation of an inflammation of the lining of the auditory canal, which had previously been insufficient to excite special discomfort. The sudden deafness in those cases being caused either by a moistening and consequent swelling of the impacted mass, or by a swelling of the lining of the canal sufficient to close the small remaining opening, through which the patient had previously heard, more or less distinctly.

* With exception of a peculiar vegetable structure, found in one of the twelve cases, the nature and origin of which he is unable to explain.

TAYLOR'S APPARATUS FOR POTT'S DISEASE IN THE CERVICAL AND UPPER DORSAL REGION MOUNTED ON THE PLASTER OF PARIS JACKET.

BY

CHARLES P. PUTNAM, M. D., BOSTON.

In the Transactions of the American Medical Association, Prof. Sayre has described and figured an appliance for suspending the head in connection with the plaster of Paris jacket. The jacket of course only serves as a pedestal on which to erect what Prof. Sayre calls a "jury mast", but it certainly makes a very good pedestal.

Taylor's method of treating Pott's disease in the upper part of the spine is not, as is well known, to suspend the head and so draw the vertebræ apart, but to apply counter pressures on the chin and on the prominent vertebræ in such a way as to throw the weight of that part of the body which is above the diseased portion onto the articulating surfaces, and thereby relieve the bodies of the vertebræ.

The following has been found to be a simple and effective means of accomplishing this end.

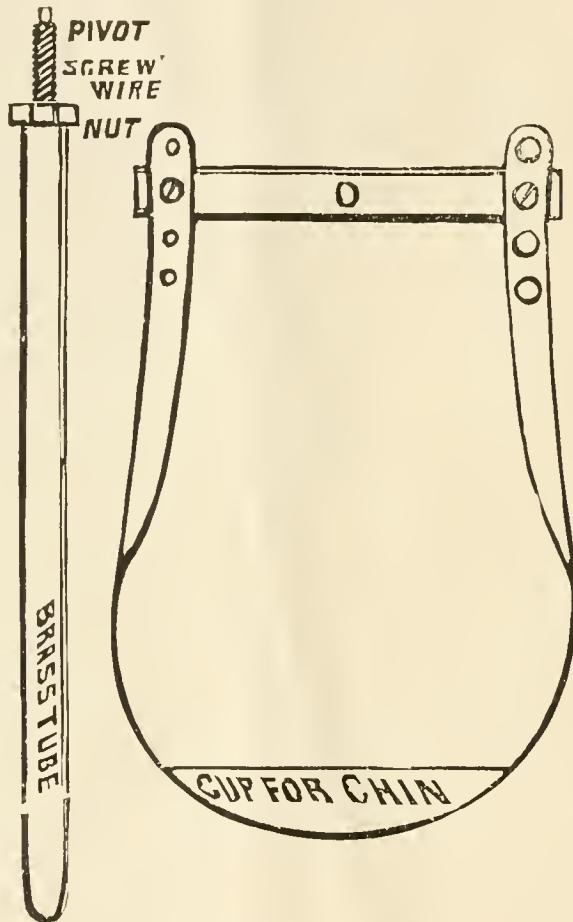
The plaster jacket is put on in the ordinary way except that a promontory is built up from it at the back quite onto the diseased portion of the spine, and in the process of construction a brass tube about a foot long and half an inch in diameter is imbedded in the back of the jacket and in the promontory. When the plaster has set a large screw wire nearly fitting the tube is slipped into it so far that the upper end of the wire is at about the height of the chin, and it is kept in this position or adjusted at will by a nut which is screwed down so as to rest on the end of the tube. The threads are filed off for about half an inch at the top of the wire to form a pivot for the chin piece or collar.

The collar may be of the simple efficient kind ordinarily in use with Taylor's apparatus, but one that is equally efficient, very easy to make and only a little less sightly is composed of a short straight strip of iron or steel for the back part and a long strip bent into a bow or letter U for the front and sides. The straight piece has a hole in the middle to receive the pivot and a screw hole and screw at each end to attach the U piece, the ends of which are twisted so as to bring them into the proper plane. Several holes are drilled through these ends, those on one side being so large that they allow the head of the screw to pass through, whereby the collar is easily put on or removed.

The front part is finished to receive the chin in the usual manner.

The only advantages that can be claimed for this collar are its cheapness and more easy adjustability.

In practice this method of applying Taylor's apparatus has left nothing to be desired except that the plaster of Paris became in a few days rather



brittle. It was perhaps of poor quality, The difficulty was however overcome by covering it with a layer of bandages wet in silicate of potash, which has made it perfectly firm.

TRANSLATIONS.

DRESSINGS FOR WOUNDS.

A series of five Clinical Lectures delivered at the Charity Hospital, Paris.

BY

L. GOSSELIN, M. D., Etc.

Professor of Surgery in the Faculty of Medicine of Paris, Etc.

Translated from "*La France Médicale*" for the ARCHIVES OF CLINICAL SURGERY.

BY

BARNARD ELLIS, M. D.

(Continued from page 24.)

For the sake of clearness in explanation of facts, I shall divide the numerous modes of dressings into seven groups:

GROUP FIRST—PROTECTOR DRESSINGS.

In this first group, I shall class all the varied kinds of dressings which neither hinder nor provoke suppuration.

Before Ambroise Paré overthrew the employment of that most barbarous of all methods, the red hot iron for the arrest of hemorrhages, and replaced it by the ligation of the arteries, I say before this grand surgical reform, the dressings used to be especially compressors.

These were so placed as to fulfill the two indications of arresting hemorrhage and protecting the wound. Since this memorable epoch, certain as we were that we need no longer to fear hemorrhage, once the ligature was well applied, that we asked only one thing in the dressing and that was to protect well the wound. It was then that we turned to plasters, salves, and topical dressings of all sorts. The number of these agents was indefinite. Pharmacopeans seemed to take pleasure in increasing the number. The ancient surgeons, and principally the Arab surgeons, threw themselves with ardor into this study, and we must acknowledge that a year seldom passes during which our medical journals do not add to the number.

We may range in this group some form of bathing, immersion, applied particularly by Mayor, of Lansanne, by Langenbeck, and by Valette, of Lyons; the method of incubation extolled by Guyot, and that by continued baths by Le Fort.

But all these successive and varied forms of dressings were based upon an imperfect knowledge of what was required, * * * * we need more simplicity, * * * * we must learn that nature supplies the cost of cicatrisation, and that the only duty of the surgeon is to *prevent* everything that interferes with natural processes.

So we leave the innumerable host of salves; the apostles' salve, the

golden, the white salve, the basilicum, etc., etc., and pass on to our

SECOND GROUP—SUPERFICIAL SUTURES.

Towards the end of the eighteenth century, the English surgeons finding themselves forced to bring to amputation wounds, cure by first intention, united simply the borders of the wound, and sometimes succeeded in giving to the solution of continuity the advantages of immediate cicatrisation. Their efforts were soon crowned with success, and in such a manner that this proposition is justly considered as one of the most brilliant pages of English surgery. But in France this new practice was seldom used, the surgeons refusing to adopt it, and it was necessary for Roux to go to London in 1814, and bring back with him the surgical method.

The same thing happened then as did more recently to the dressing of Lister. Roux, in relating his experiences, which were published in 1815, eulogised in the most exalted way this mode of treatment, making, however, this reservation, that on the other side of the channel it was carried to excess.

However that may have been, he did really import it into France, and during the next twenty years our surgeons, seized with a sort of infatuation for a treatment which they had at first repulsed, employed it generally for all amputation wounds. * * * * * It was soon seen, however, that this healing by first intention, at the borders of the wound, did not bring with it cure, without suppuration. * * * *

Exceptionally, the deep parts of the borders might heal together, but the cases are so rare as scarcely to permit us to hope for it. Most often there is no reunion. A violent inflammation seizes upon the deep parts and step by step soon invades all the parts, till reaching the lips of the wound, it disorganizes the work of union possibly commenced there.

Or, indeed, the lips may have nearly attained union, but the deep parts not participating in this work of organization, becomes a veritable focus of infection, a receptacle for those putrid products, which, if absorbed, bring in their train the terrible accidents of pyæmia.

In the face of such unfavorable results, we renounced, under the impulsion and instigation of Bérard, of Denonvilliers, and of Nelaton, this method of dressing, and to-day its only partisans in France are the surgeons of Montpellier. You will find related, in fact, in the thesis of Dr. Dubrueil, formerly agrégé professor in our Faculty, and now professor of Clinical Surgery at Montpellier, the practice of Doctors Alquié, Bonsson, and Courty, who still follow this method.

Still, it is proper to say, Dr. Dubrueil, who is better able than any

other man to judge this practice, recognizes clearly the fact that the surgeons of Montpellier have not much to congratulate themselves with in this immediate reunion, which succeeds by exception, miscarries almost always, and leaves only a determination to erysipelas or purulent infection. In a word, this tentative, this experimenting upon immediate reunion ought to be repelled in all cases of capital operations, at least in our hospital practice, and we must return to our protector dressings. In this group also ought to be found a place for the method of O'Halloran, named by him, *secondary immediate reunion*, a method born of these exclusive methods, and participating at the same time of the first by bringing together the edges, and of the second by suppuration, which is allowed to establish itself before juxtaposition of the edges is made.

It is a method which presents important advantages, and, thanks to which, we are enabled to bring to the most of wounds in good condition, primitive reunion, without exposing them to the grave complications which are liable to accompany them. We would not adopt this method by election, but it is well to preserve it, particularly in those cases where it is necessary that suppuration should intervene to eliminate foreign bodies; scabs, and all altered tissues.

It was out of the researches for means to withdraw from wounds all accidents of pyæmia that came the employment of alcohol, and now we arrive at our

THIRD GROUP—ALCOHOLIC DRESSINGS.

Professor Nelaton was the first to recognise this practice. One of his pupils, Dr. Chédevergne, made it the subject of a paper which it is interesting to consult, and since then a good number of surgeons have followed the practice, and have obtained the most favorable results. Doctors Guyon and Dolbeau, among others, are strong partizans of it.

Generally, we use 90 per cent alcohol in which to soak the lint pad. Dr. Delens, in a recent work, advocates the use of camphorated alcohol, at a density of 53°. My own opinion is, that we should use the 90 per cent. Howsoever that may be, here are the appreciable effects of this dressing: 1st, the patient has little febrile reaction; 2d, traumatic fever is nearly nil; 3d, contact of the alcohol with the surface of the wound gives only moderate and very supportable pain; 4th, no swelling of the edges of the wound; 5th, no redness; 6th, no appreciable heat, and, principally, no putridity in the deep parts.

These remarkable effects are not absolutely true in every case, but I cannot too often state to you that there are no absolute results from any of the divers modes of dressings, which we shall study, but in the sum total,

this is the kind which we find resulting best in the great majority of cases.

How does alcohol act? It is very difficult to give a clear and precise answer to this question, and is, perhaps, sheltered from criticism. Alcohol is ranged among the agents which coagulate albumen. This property is undeniable. But is it as a coagulent that it acts when it determines a coagulum in the mouth of a vessel, or, when it produces on the surface of the wound that greyish white pellicle which is characteristic of this dressing? We cannot precisely say; we only can state the fact and that is all. On the other hand, Dr. Chédevergne observed that it had a disorganizing influence on pus globules, as the microscope easily demonstrates, and Dr. Dubrueil, who has repeated these experiments, is well assured of the fact.

From the moment that I admit that alcohol determines coagulation of albumen, I do not hesitate to range it in the same group with perchloride of iron, it also producing coagulation at the surface of a wound and in the vessels. Dr. Bourgarde has obtained good results from it in the Hospital Clermont-Farrand; and for myself, I experimented with it in 1869, and found also good results. But this wound, upon which we apply alcohol, how does it act? What becomes of it?

To become completely cicatrised, a wound must pass through the period of the pyogenic membrane. Now, as alcohol retards the formation of this membrane, definite cicatrisation is long in establishing itself; and at the side of the legitimate satisfaction we feel in seeing our patient escape the accidents of the first period, contrarywise we see the days slip away without any definite work of healing being effected, and we soon find ourselves obliged to change the dressing, and to employ, for example, glycerine, which favors the development of this pyogenic membrane. I know well that alcohol determines precisely this immediate reunion of which I have spoken, but it will not provoke it, except in wounds of small extent, and particularly in wounds of the head.

Alcohol is then more often insufficient, and it became necessary to look for some other dressing which would moderate the accidents of the second, or period of suppuration. Some surgeons, amongst others Dr. Jules Gnérin, insisted upon the dangers of contact with air, and had the idea that we must treat wounds inevitably, fatally destined to suppuration, by a local application that would exclude the air.

FOURTH GROUP—DRESSING BY PNEUMATIC OCCLUSION AND CONTINUED ASPIRATION.

Exclusion of air and continued aspiration constitute the features of this group.

Dr. Jules Guérin, about 1866, devised a plan for overcoming the grave imperfections of the usual methods of cure by occlusion, which methods were never perfect, but left the liquids and gases exuded by the wound, to remain in contact with it and become altered, and to remain in the bandages.

This plan was to envelope the parts exposed to the air, in a sheath of impermeable tissue, through which he emptied these products by means of a pump.

Dr. Guérin's first idea was to suppress suppurative inflammation of wounds, and to bring them to the morbid type of sub-cutaneous wounds. But after all, gentlemen, it was only an idea, which the author was soon forced to abandon. It was then that Dr. Maisonneuve justly insisted upon the value of continuous aspiration, and in a paper which he read to the Academy of Sciences at the meeting of the 4th of November, 1867, he set forth the method and the apparatus necessary to fulfill these indications.

Surgery believes that the liquids which are poured from wounds, die in contact with the air; alter, putrify, and become poisonous agents, and to guard against this fearful complication, he submitted these liquids to a constant call; a continued aspiration, removing them as soon as they accumulated, or certainly before they had time to putrify.

This method was not adopted, but it was a halting place famous in the history of dressings. Under its influence all those complicated apparatuses which brought to wounds exaggerated pressure, considerable oedema of the parts above the stump, etc., fell into disuetude. But I shall show you that this dominant idea of shielding wounds from contact with the air, was, by itself, rich and fecund in results.

We touch in fact the study of the processes which seem to have brought a real revolution, a happy and propitious one, to surgical science.

FIFTH GROUP—DRESSINGS OF WADDING, OCCLUSIVE AND COMPRESSIVE.

This dressing, originating in France, and based upon remarkable and eminently French discoveries; a method which by itself constitutes our 5th group, was soon crowned with success, bringing with it the happiest results.

I now go to speak of the occlusive and compressive dressing of Doctor Alphonse Guérin.

First and briefly, how is it applied? Secondly, we will study its appreciable effects, and the theory upon which it is based. * * * An amputation of the thigh, for example, * * * hæmostasis complete; ligatures properly applied, * * * the wound washed and wiped dry, * * * opera-

tion has been performed in a private room, distant from the public wards ; * * * a large quantity of wadding has been made ready, which was never in the general wards, and which is taken from an oven as hot as possible. With layers of this wadding we plug perfectly the cavity of the wound. Then we secure the plug by layers of the wadding applied so as to overlie each other on the circumference of the member ; then, other layers rolled around these as far as the crease of the groin, and also around the pelvis. Dr. Alphonse Guérin says : that the parts when covered with cotton should be at least three times their normal dimensions. The whole mass is held in place and compressed by roller bandages.

In applying these bandages it is necessary to use great force, particularly at the finish of the dressing. While it is necessary that compression should be exercised progressively, it ought at the same time to be made slowly, without shock or jar, and in a uniform manner. The application is to cease when the wadding no longer yields to pressure.

This dressing should remain in place for twenty to twenty-five days. At this period it is renewed, and after two or three successive applications the patient is cured.

Its appreciable effects are surprising. The inflammatory period is moderate, and sometimes is escaped. The appetite and sleep are in many cases as well preserved as before the accident. Enthusiasts say there is no pain. This is exaggeration. Pain exists, but is modified : and, we must add, is much less than under any other form of dressing. When we remove the dressing for the first time, we are utterly surprised at what we see. The layers of wadding near the wound are strongly adherent ; the last cake, formed like a sort of capsule, on being raised, discovers a very small quantity of creamy, well thickened, laudable pus, without a shade of appearance of putridity, giving out an odor somewhat sour, but not repulsive, and which we may compare to that of old grease. The wound is covered in all its extent with a superb, vermilion colored, granulous pyogenic membrane, which covers and hides the bone as entirely as the other tissues.

To sum up, it is a dressing which gives us cicatrisation after suppuration, but which diminishes it in a surprising manner. Now, what are the principles upon which this method rests, the happy results of which I have shown you ? It is as you have already foreseen, but a continuation of the theory of Dr. Jules Guérin.

In both methods, air is considered as an evil, noxious and pernicious, from contact with which it is necessary to protect the wound. You will

remember Dr. Jules Guérin's theory and we shall not return to it. But, Dr. Alphonse Guérin thought the air not hurtful in itself, but only through the miasms it contained, the existence of which was so thoroughly recognized by Dr. Pasteur, and which when in contact with organic products, became changed into moving elements ; I will not dare to go so far as to say living elements. Inspired then, by the admirable researches of my honorable colleague in the Academy of Sciences, Dr. Guérin covered wounds with wadding in thick masses, well compressed, in the end to filter the air, to sift it, and thus arrest the passage of any of these myriads of germs with which it is loaded, to withdraw the wound from their contact, and thus to prevent all fermentation from being produced ; so, in a word, as that the pus will show no trace of these mobile elements, these vibriones about which so much noise has been made. *

Well ! gentlemen, I do not hesitate to say that I am not of this opinion, and for us, things do not fall out thus.

I have seen very clearly and undeniably, vibriones in the pus of these dressings on the twenty-fifth day. Dr. Pasteur has stated the same thing ; and at the Hotel-Dieu Hospital, Dr. Alphonse Guérin found them upon dressings applied by himself. I have recognized their existence many other times besides, and yet the results were favorable, happy ; and the wound, superbly vermilion, progressed towards cicatrisation without accident or complication.

I do not invoke the germ theory, as do Doctors Guérin and Pasteur, to explain the legitimate success which this dressing enjoys among us, and which is, I repeat, an excellent dressing. My opinion is, that it acts by its efficacious protection, by the compression exercised, and, also, because it is uncommon, and you know the importance I attach to the rarity of dressings.

(To be continued.)

Supp.

PROGRESS OF SURGERY.

SEMI-ANNUAL REPORT IN PRACTICAL DERMATOLOGY.

BY

HENRY G. PIFFARD, M. D.

~~Professor of Dermatology in the University of New York, Surgeon to the Charity Hospital, etc.~~

Therapeutical Notes, collected at the Dermatological Clinic of Prof. Hardy, by Dr. R. Ory.—(*Notes de Therapeutique, etc.* Paris, 1877.) This little tract of forty pages contains many useful hints and admirable formulæ, collected at the largest dermatological clinic in Europe. From among those given we select a few of the most important.

Trichophytosis.—After epilation, if the disease is located upon the scalp or in the beard, the following ointment is to be applied night and morning :

$\mathcal{R}$		GRAMMES.
Camphoræ,	- - - - -	1. [gr. xv.]
Hydrarg. sulph. flav.,	- - - - -	2. [℥iss.]
Cerati,	- - - - -	30. [℥j.]

M.

If the affection is on the general surface, the following will often suffice :

$\mathcal{R}$		GRAMMES.
Potass. carbonat.,	- - - - -	0.25. [gr. iv.]
Sulphuris,	- - - - -	0.50. [gr. viii.]
Cerati,	- - - - -	30. [℥j.]

M.

Phytosis or *Pityriasis Versicolor*.—Sulphur baths or ointment will usually suffice :

$\mathcal{R}$		GRAMMES.
Sulph. sublimat.,	- - - - -	2. [℥iss.]
Cerati,	- - - - -	30. [℥j.]

M.

Scabies.—The duration of treatment has been reduced by Hardy to a few hours. The patient is first rubbed all over the body with soft soap and warm water, the friction being kept up for twenty minutes. A warm bath of forty minutes duration is then taken. After drying, the following ointment

℞							GRAMMES.	
Potass. carb.,	-	-	-	-	-	-	25.	[3vj.]
Sulphuris,	-	-	-	-	-	-	50.	[3xiv.]
Ungt. simpl.,	-	-	-	-	-	-	300.	[3x.]
M.								

is thoroughly rubbed in, after which the patient is put to bed until the following morning. The next day an emollient bath removes the ointment and the dead acari. If the skin is still irritable, emollients should be employed for several days.

Anti Pruritics.—In pruritus pudendi, scroti, etc., and in other pruriginous affections, Hardy employs the following :

R	GRAMMES.					
Hydrarg. bi-chlorid,	-	-	-	-	1.	(gr. xv.)
Alcohol,	-	-	-	-	q. s.	
Aq. destil.	-	-	-	-	120.	(f℥iv.)
M.						

A teaspoonful to be added to a glass of water, and the affected parts bathed with the lotion several times a day.

$\mathcal{R}$							GRAMMES.
Chloral. hydrat,	-	-	-	-	-	-	I. (gr. xv.)
Glycerini, -	-	-	-	-	-	-	(f. 3vss)
Aq. destil., -	-	-	-	-	-	aa. 25.	(f. 3vii.)
M.							

R	GRAMMES.
Sulphuris, - - - - -	5. (gr. LXXX.)
Emuls. amygdal, - - - - -	250. (℥viii)
M.	

$\mathcal{R}$	GRAMMES.
Hydrarg bi-chlor., - - - - -	-
Ammon. Hydrochlor., - - - - -	aa, 0.25 (gr. iv.)
Emuls. Amygdal, - - - - -	250. (f℥ viii)
M.	

$\mathcal{R}$	GRAMMES.
Sulphuris, - - - - -	4. (3i.)
Gum. acaciae, - - - - -	5. (gr. LXXX.)
Al. amygdal. dulc., - - - - -	8. (f3ii.)
Aq. lauro-cerasi, - - - - -	10. (f3iiss.)
Syrupi simp, - - - - -	30. (f3vii)
M.	

One or another of these lotions may be applied night or morning.

Urticaria.—In chronic *Urticaria*, Hardy sometimes uses the following :

$\mathcal{R}$						GRAMMES.
Soda Arsenitis,	-	-	-	-	-	10. (gr. iss.)
Soda bi-carbon,	-	-	-	-	-	15. (℥ss.)
Aquaæ.,	-	-	-	-	-	400. (f℥xiv.)
M.						

A tablespoonful in a glass of water before breakfast and after dinner.

Scrofulous Ulcers.—In addition to internal treatment, the following may be applied locally.

$\mathcal{R}$						GRAMMES.
Plumbi. oxid, rub.	-	-	-	-	-	
Hydrag. sulphid, rub.	-	-	-	-	-	aa, 1. (gr. xv.)
Cerati,	-	-	-	-	-	30. (℥j.)
M.						

If a more energetic application is required, the following is used :

$\mathcal{R}$						GRAMMES.
Iodini,	-	-	-	-	-	1. (gr. ii.)
Potassii iodidi,	-	-	-	-	-	3. (gr. xlv.)
Aq. destil,	-	-	-	-	-	30. (f℥i.)
M.						

In Ganglionic engorgements, Hardy uses :

$\mathcal{R}$						GRAMMES.
Camphoræ,	-	-	-	-	-	1. (gr. xv.)
Ext. conii.	-	-	-	-	-	2. (℥iss.)
Ungt. simpl.	-	-	-	-	-	30. (℥i.)
M.						

To be well rubbed in.

Local Treatment of Psoriasis.—Mr. Cottle (*Lancet*, Sept. 30, 1876,) recommends a solution of india-rubber, made by dissolving half an ounce of india rubber in eleven and a half ounces of chloroform. He has found it useful in chronic cases of psoriasis, where there is an excessive formation of dry scales, especially in the neighborhood of the joints. The crusts and scales being removed, and the absence of grease insured by wiping the parts with ether, and the skin dried, the solution is applied with a brush, and the application renewed as often as is needful to maintain a continuous covering over the affected skin. He has met with more rapid recovery in these cases by this application, than by the ordinary local measures. He thinks the same treatment is applicable to some cases of chronic eczema.

Treatment of Psoriasis.—Dr. Dowse (*The Practitioner*, Nov., 1876,) treated a case of extensive and inveterate Psoriasis in the following manner: The patient, a young woman, “was kept in a blanket bath for six hours, (the bed was covered with a large piece of india rubber sheeting, and upon this was placed a blanket, wrung out of hot water, in which the patient was firmly packed, and then covered with eight blankets,) and allowed to drink freely of iced water: She said it made her feel rather sick and uncomfortable, but the respiration and circulation were never interfered with, neither did the temperature rise above 100°. When she was removed, all the scales had disappeared, leaving the body of a lobster redness. She was then enveloped in rubber sheeting, which was bandaged close to her body. By this process the Psoriasis might be said to have been converted into an eczema, for there was profuse discharge with tendency to scabbing. In a day or two, the scabs disappeared, but not to the same extent.” The patient was again packed on the tenth and sixteenth days, and in three weeks from the beginning was entirely well. *Sic*

Treatment of Erysipelas.—Dr. Charles Bell (*Edin. Med. Jour.*, Aug. 1876,) believes that the failure which many experience in the use of the muriated tincture of iron in erysipelas, is due to the fact that it is not usually employed in sufficient doses. He recommends that it shall be given in twenty drop doses, every two hours, day and night. When thus used, he says, that it is a certain and unfailing remedy.

Treatment of Sebaceous Tumors.—Dr. B. N. Hamilton (*Med. & Surg. Reporter*) punctures the tumor with a bistoury, sufficiently to allow escape of its contents, which are carefully pressed out. He then injects tincture of iodine until the sac is distended to its original dimensions. It is allowed to remain for five minutes and then to escape. After a week, a second injection may be necessary. In six cases thus treated, cure resulted in the three cases from a single injection, and in the other three cases from two injections. He says: “Make the puncture no larger than is necessary to allow escape of the contents of the tumor and the admission of the nozzle of the syringe. Empty the cyst of its entire contents. Distend the sac as much as possible, moving the point of the syringe in different directions, so as to bring the fluid in contact with every portion of the cyst wall.”

Treatment of Acne.—Chantry (*Lyon Med.*, June, 1876,) uses with benefit iodide of sulphur in the severer forms of rosaceal acne. He gives it in pills, each containing 0.03 (gr. ss.) iodide, and 0.12 (gr. ij.) extract Dulcamarae. Locally he uses:

℞		GRAMMES.
Potassae sulphid,	- - - - -	
Tinct. benzoin,	- - - - - aa,	4. (℥i.)
Aquae,	- - - - -	100. (℥iii ss.)

A dessert spoonful is added to a glass of warm water and applied twice a day. (We have seen decided benefit follow the internal use of iodide of sulphur on indurated arene, but have rarely been able to employ it in doses exceeding 0.005 to 0.01 (gr. 1-10—1-6) without producing gastric disturbance. Externally in the form of ointment it has been used for many years.—REP.)

Treatment of Bromidrosis Pedum.—Kuester (*Deuts. Zeitschf. F. Pract. Med.* No. 82, 1876,) employed successfully :

℞		GRAMMES.
Acid salicylic,	- - - - -	8. (℥ij.)
Talc - - - - -	- - - - -	15. (℥ss.)
Amyli, - - - - -	- - - - -	10. (℥iiss.)
Saponis, - - - - -	- - - - -	4. (℥j.)

The feet are thoroughly washed and dried and the powder is dusted over them, and between the toes, and some put in the stockings.

Ortega (*Bul. Gen. de Therap*, Feb. 29th, 1876,) in the same affection, recommends the use of a one per cent. solution of chloral hydrate. For a long time the Ungt. diachyli (Hebræ) has been successfully used in bromidrosis pedum and other affections. This ointment, however, is troublesome to make, and soon becomes rancid. As a substitute we have for some time past used the following, as it may be made in any quantity and keeps indefinitely :

℞	
Emplast plumbi,	- - - - -
Vaseline,	- - - - - aa, q. s.
M.	

Melt the two together with a gentle heat, mix thoroughly and stir till cold. It is to be applied to the feet twice a day.—REP.)

Tattooing of Naevi.—Sherwell (*Archives of Dermat*, April, 1877,) "takes a number of fine sewing needles, first sharpening and somewhat roughening their cutting edges with a fine flat file, at and for a short distance from their points, and then by means of heavy sewing machine silk, well waxed, wrapped around the upper two-thirds of each in turn, and all together, forms a fascies-like bundle, the points being somewhat less than an inch apart." When prepared, he takes a saturated or 50 per cent. solution of carbolic acid, or a 25 per cent. solution of chromic

acid, in a shallow vessel, and dipping the points of the needles therein, makes a series of punctures into the skin of the affected region. After the usually slight bleeding ceases, he wipes off the part with a little alcohol and quickly applies several layers of collodion. (The method here detailed is simpler than that of Squire, noticed in our last Report, and is probably as effective. REP.)

(Archives of Clinical Surgery)

HOSPITAL RECORDS.

PENNSYLVANIA HOSPITAL, PHILADELPHIA.

REPORTED BY JOHN B. ROBERTS, M. D.

DELIRIUM TREMENS IN SURGICAL CASES.

There are, of course, many cases of injury admitted in which delirium tremens occurs as a complication and demands treatment. Whether the chief cause of delirium in drunkards be the toxic effect of alcoholic stimulation carried to excess, or the sequela of an abrupt cessation from all stimulus after prolonged indulgence, is a difficult question to solve. The experience in one of our reformatory institutions here, in Philadelphia, seems to prove that these nervous phenomena are the result of the continued use of alcohol, combined with the ill-nutrition depending on the disordered gastric functions; for the treatment carried out with all inebriates is to immediately require absolute abstinence, instead of the gradual withdrawal system, and to attend carefully to re-establishing the digestive processes. Such is the usual practice in the Pennsylvania Hospital, in the alcoholism wards, and the cases of mania following this enforced teetotalism are rare, though the number of alcoholism cases admitted is quite large.

It is a fact, however, that the disease in surgical cases generally develops 36 or 48 hours after the injured patients are taken into the wards; and it may therefore, be asked, whether the old practice of giving all drunkards with severe injuries a fair allowance of whiskey immediately after admission, to keep them steady, was not a good treatment, even if the moral propriety be questionable. On the whole, however, when it is recollected that in hospital practice the large majority of the inferior classes treated for surgical affections are habitual tipplers or debauchees, receiving their injuries while intoxicated, the number of instances of traumatic delirium tremens certainly ought to be greater than it is, if the abrupt cessation of drinking, resulting from hospital discipline, was the main factor in the cessation of this disease. It would rather seem, then, that traumatic mania a potu is dependent upon a disturbance of nervous equilibrium from the shock of injury, operating on a patient of great nervous susceptibility, resulting from previous alcoholic indulgence.

The treatment ordinarily adopted in such cases at this hospital is to give no stimulus, except in rare instances, but to administer moderate doses of chloral and bromide of potassium to those who show great nervous agitation after receipt of injury, and to attend to the nutrition of the patient by feeding him upon beef tea and other nourishing and easily digestible food. If mania develops in spite of these precautionary measures, the above drugs are increased in quantity, to say ; chloral, gr. x. bromide of potassium, gr. xxx, every two or three hours, and in addition a fair dose of morphia or opium is administered at bed time. As the disease seems to be inclined to self limitation, there will not be much amelioration of symptoms under treatment, until the second or third night, when the soporifics apparently act favorably by aiding nature, and the patient sleeps quietly, awakening free from hallucination. In nearly all surgical cases of this sort, restraint is demanded, and in cases of fracture it is almost always well to apply some variety of fixed-dressing, of which the plaster, of course, hardens most rapidly.

Recently some cases have occurred in which the active delirium with its hallucinations has been developed twice : occurring at first about two days after admission and disappearing under the usual treatment ; but two or three days after convalescence, suddenly occurring again as violent as ever. Some other cases have been interesting, in that there has been intermittent delirium for several weeks ; the patient delirious for twenty-four or forty-eight hours, then becoming well, so that all medication was stopped ; but, after a day or two of perfectly clear intellect, lapsing again into the same delirious mutterings and restlessness. This cycle being repeated over and over again, but the patient making a final recovery. These all seemed to be cases of delirium tremens, and not febrile delirium, as it may occur in any person with acute disease.

An interesting symptom that occurred in two cases of non-traumatic delirium tremens, recently treated, was the high temperature of the patient just before the fatal issue. In both instances, the axillary temperature reached 108° F. before death, which occurred by coma. This occurrence may not be as rare as it seemed at the time, but it has certainly not been given much prominence.

ALBANY HOSPITAL, ALBANY, N. Y.

REPORTED BY MAURICE J. LEWI, M. D., Resident Physician and Surgeon.

TUMOR IN THE KNEE-JOINT—SERVICE OF PROF. A. VAN DERVEER.

F. C., aged 54 ; single ; farmer ; habits good ; remarkably well pre-

served for a man of his age. Admitted to hospital, Oct. 7th, 1876. Twelve years ago while driving logs off his farm, the horses becoming unmanageable, threw him from his seat on the wagon to the ground, and against the stump of a tree which had been felled. A deep gash was made just below the lower border of the patella. He applied a bandage to the knee and went about his work, experiencing no unpleasant symptoms. Seven years after this time, he noticed a very slight swelling above the point of the injury, but did not pay much heed to it. Continuing, however, in its growth and becoming very painful, two years ago, he applied for relief to a physician in Utica, who ordered it painted with tincture of iodine. The growth of the tumor now apparently ceasing, he neglected it : but a year ago he noticed that it impeded his walk, incapacitating him for work. On above date he entered hospital for treatment. An operation for removal was decided upon, and a few days after admission it was consummated, Lister's anti-septic treatment being faithfully carried out. The capsule of the knee-joint was opened into, and a neuroma, involving also the edges or fringes of the semi-lunar cartilages was removed, the tumor in all weighing four drachms. The wound was closed, and Lister's anti-septic gauze, lint, etc., was applied.

The limb was tightly bandaged and kept perfectly straight. Ten days after the operation the dressings were removed ; the parts had united firmly without the formation of any trace of pus whatever. Patient was discharged at the end of the fourth week, having the free use of the knee-joint.

His attending physician, Dr. O'Hara, of Utica, writes Feb. 18, 1877, " that Mr. C. has free motion of the knee-joint ; is able to draw up the foot while sitting, beyond a right angle ; while extending the leg, he can, with very little effort, raise the foot higher than the pelvis. The rotary motion is rather constrained. He walks very free and with perfect ease, using no cane ; complains of no pain, and feels very grateful over the excellent result. The knee-joint just at and above the incision, is very tender to the touch, but outside this spot is hard and free from any soreness.

REMARKS.—This case is in many respects a remarkable one. The little disturbance resulting from opening into so important a structure as the knee-joint is, indeed, a triumph for modern surgery. The perfect recovery and usefulness of the joint resulting. The patient from pain, idleness and suffering being returned to his work, is another evidence of surgery being at times able to cure and not always to mutilate.

AMPUTATION OF THE NECK OF THE UTERUS—SERVICE OF PROF. VAN DERVEER.

S. M. B., aged 40 ; born in United States ; married ; one child, nineteen years old ; after that a miscarriage. Patient had been troubled with great sensitiveness of the uterus for three years, making copulation painful, straining at stool also caused great pain. Admitted into hospital Feb 26th, 1877. On examination, the walls of the os and cervix were found to be very much thickened, hardened and longitudinally hypertrophied. Amputation was decided upon. Two days after, in the presence of the hospital staff, Dr. Van Derveer, with the galvano-cautery, removed an inch of the neck of the uterus, with no hemorrhage. Patient improved rapidly and was discharged March 9th, 1877, convalescent. On examination of the amputated portion, between the fibres was found densely distributed, a fibro-plastic material. The lesion constituted an hyperplasia of Virchow. At present writing, patient is very comfortable, and a healthy cicatrix has formed.

This patient had received from her attending physician the best of treatment as to local applications, cupping, etc. ; yet, nothing seemed to give her any permanent good. The menstrual periods since the operation, (now June 1st, 1877,) have been more comfortable and natural than for years. There have been some profuse granulations from just within the new external os, but these have disappeared by applications of caustic and pressure. Dawson's battery was used.

GLANDULAR POLYPI OF THE NECK OF THE UTERUS—SERVICE OF

PROF. J. P. BOYD, JR.

A. G., aged 31 ; single ; domestic ; admitted to hospital, Dec. 27th, 1876, for relief from menorrhagia and dysmenorrhœa. Complained greatly of pain in the back, in the region of the kidneys ; was unable fully to empty the bladder. The catamenial flow came on every three weeks, lasted from eight to ten days, and then left the patient in a weak and dejected condition. The attending physician for diseases of women, Dr. Boyd, Jr., was called in, and at once surmising the cause of the difficulty, made an examination, and discovered a small polypus fastened by a loose pedicle to the mouth of the uterus ; also, a retroflexion of the entire organ. A few days afterward, with the ecraseur, the growth was removed. The following month the catamenial flow came on without any pain, lasting but four days. Two weeks from this time, however, they returned as severe and painful as ever before. The os was now dilated by means of a sponge tent, and upon examination the whole neck of the uterus was found studded with these mucous growths. By means of the vulsellum scissors as many as could be reached were re-

moved. Astringent washes were applied—sol. per sulphate of iron—as also: carbolic acid, 3 gr. ad. $\mathfrak{3i}$, morning and night. Patient improved at once, and was discharged March 17th, 1877, cured, but still under surveillance.

BELLEVUE HOSPITAL, NEW YORK.

REPORTED BY S. O. VANDERPOEL, JR., M. D.

FRACTURE OF THE ODONTOID PROCESS—PROLONGATION OF LIFE FOR SIX AND A HALF MONTHS.

Frank Tinervian, aged 21; single; United States; admitted October 12th, 1876.

Two weeks before admission patient fell from a wagon, striking heavily on the back of his head. Since that time he has been unable to bend his neck or turn his head, but keeps it all the time in an exceedingly erect position. Examination disclosed a peculiar deformity of the back of the neck, making it appear as if several vertebrae were displaced forwards. A closer examination caused the visiting surgeon to decide that only one vertebra was affected, the fourth cervical, which he supposed to be fractured through the right lamina, the fragment being dislocated to the right.

The patient was advised of the necessity of keeping very quiet and avoiding all sudden motions, and as he seemed inclined to take proper care of himself, he was allowed to sit up all day.

Oct. 21st. As patient complains of a great deal of pain in the muscles of the neck, from his constrained position, he was ordered unguent. belladonna.

Oct. 26th. His neck is still very painful, but less so than before the application of the belladonna ointment.

December 4th. All motion of the neck is painful. He has neuralgic pains about the shoulder and neck. Collodion vesicant was applied.

Dec. 6th. His pain has not been very much relieved.

January 3d. Patient has had two or three falls and jars, but they have not caused any harm to his neck.

April 12th. He has been quite comfortable for the last two months. The pain he had in his neck on the 6th of December, was relieved by the continued use of belladonna ointment, and since then he has not complained. He has been doing general work in the ward until to-day, when he complained of great pain in his back and arm and was put to bed.

April 13th. It seems that the pain in the neck has been coming on for four days, gradually increasing in severity. 9 *a. m.* Is complaining of intense pain, paroxysmal in character, in his neck. There is hemiplegia of the right side with general anaesthesia of the right arm, which is congested and oedematous. 1 *p. m.* There is now dysphagia, and diaphragmatic respiration, the thoracic respiration being suspended. Any movement of the body is referred with great pain to the neck. Patient assumes the left decubitus. The bladder and rectum act normally. Treatment, eight leeches, and a blister to the neck, with hypodermics of morphia. Pulse 52 and irregular, respiration 32.

April 14th, 6 a. m. There is complete paralysis with general anaesthesia. The patient is cyanotic, and there are no respiratory movements of chest or abdomen. At 7.45 *a. m.*, he died of apnoea.

Autopsy. Twelve hours after death. Thorax, abdomen and brain not examined. The cervical vertebrae were all removed, when it was found that there was a fracture of the odontoid process, transverse in direction, below the articular facet which articulates with the axis. The transverse ligament was intact, and the upper fragment of the odontoid was held in place by it, and thus prevented from pressing against the cord. No dislocation or other fracture was found. The cause of death was meningitis of the cord, produced by caries of the axis. The deformity of the neck was due to muscular contraction, holding the odontoid away from the cord.

REMARKS.—This case is one of more than ordinary interest on account of the extreme rarity of the accident, and the length of time that the patient survived after it. Prof. Willard Parker reported a similar case in the *New York Journal of Medicine* for March, 1853, the patient living for five months after the receipt of the injury, and during all that time, still continuing to follow an active occupation. In the same interesting paper, four other instances are mentioned and two of the cases given in full. These cases go to prove that fracture of the odontoid process is not necessarily immediately fatal, as it is commonly supposed to be.

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This volume contains the papers which were presented to the Society at its first annual meeting, held in the Academy of Medicine, New York, Sept., 1876, and embraces a number of monographs by the most distinguished gynecologists of the country. It is not our intention to criticise the views which are advanced by the several contributors, but we think that the volume demands the hearty support of every member of the profession. It is, undoubtedly, the finest volume of transactions that has ever been published in this country, and we think we are safe in saying, that it has few equals and no superior among the many admirable similar works that have been published by the European societies. The more important papers in the volume are as follows:

Etiology of Uterine Flexures, with the Proper Mode of Treatment Indicated, by Thomas Addis Emmet, M. D., of New York.

Extirpation of the Functionally Active Ovaries, for the Remedy of Otherwise Incurable Diseases: by Robert Battey, M. D., of Georgia.

On the Relations of Pregnancy to General Pathology: by Robert Barnes, M. D., of London.

Latent Gonorrhœa, with Regard to its Influence on Fertility in Women: by Emil Noeggerath, M. D., of New York.

The publishers have presented the volume in a very handsome style; it being printed on heavy tinted laid paper; thus making it an ornamental as well as very useful addition to a physician's library.

How to Use the Ophthalmoscope: by Edgar A. Browne, Surgeon to the Liverpool Eye and Ear Infirmary. 12 mo., pp. 120. Henry C. Lea, Philadelphia. 1877.

This is a useful little volume to the student beginning to use the ophthalmoscope. It supplies the place of an instructor, and calls attention to many important and practical points which one not skilled in the examination of the eye would be likely to pass by carelessly. It is quite evident that the author understands the acquirements of a good ophthalmoscopist, and also the steps necessary to his best development.

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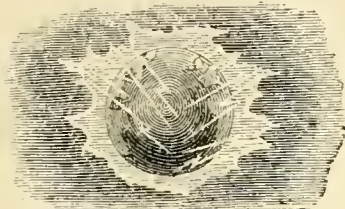
Pamphlets have been received from Drs. D. Hayes Agnew, J. Marion Sims, T. Gaillard Thomas, C. R. Agnew, Henry D. Noyes, Samuel W. Gross, Edward W. Jenks, Emil Noeggerath, Edward R. Squibb, Emil Gruening, and Henry B. Sands.

The following exchanges have come to hand :—

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